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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
DANIELS, MATTHEW J	
ART UNIT	PAPER NUMBER
1791	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/701,879	MOHANTY ET AL.	
	Examiner	Art Unit	
	MATTHEW J. DANIELS	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 May 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4,5,7,9-15 and 17-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,5,7,9-15 and 17-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 30 May 2008 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Rejections over Medoff in view of Polovina and Valenti

2. **Claims 1, 2, 4-7, 9-15, 17-22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Medoff (USPN 6207729) in view of Valenti (Bulk Properties of Synthetic Polymer – Inorganic Salt Systems. Melting Behavior of Salted Poly(caproamide), The Journal of Physical Chemistry, Vol. 77, No. 3 (1973) pp. 389-395) and Polovina (USPN 3637571). **As to Claim 1**, Medoff teaches a process for producing a temperature sensitive natural filler-reinforced thermoplastic polymer composition as an article which comprises:

(c) extruding a mixture of a temperature sensitive natural filler, consisting essentially of cut fibers selected from (3:10-47) plant leaves, stalks, seeds, and pellets (4:57-60) at a melting

temperature less than 200 C (5:56-57) without degrading the natural filler (implicit in that the mixer and extruder temperature remains "less than about 190° C", 5:48-49 and 5:56-57).

Medoff is silent to the pre-blending, pre-drying, the metal salt and the particular amount, melt temperature suppression, pelletizing, and the method wherein without the metal salt the material would degrade the temperature sensitive filler.

However, these aspects of the invention would have been prima facie obvious for the following reasons:

Polovina teaches a process for producing a filler reinforced thermoplastic composition comprising pre-drying a thermoplastic polymer to remove moisture (5:10-40) and extrusion forming the polymer and metal salts (4:43) through a die in a first extruder (5:60-61), wherein the additives are present in an amount of 1 to 10% (2:70), and subsequently pelletizing the strand to form pellets (5:60-61). This technique is generally known as a masterbatch process.

Valenti teaches a method wherein a mixture of a thermoplastic polymer and additive is provided wherein the melt temperature is suppressed below 200 C by a metal salt (page 394, left col., bottom) incorporated into a polymer material at about 1-10% by weight (page 394, left col., bottom). It is submitted that the claimed effect (drawn to what would occur without the metal salt) would be implicit when the salt and nylon of Valenti are used with the Medoff process.

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the methods of Polovina and Valenti into that of Medoff for the following reasons:

(a) Medoff suggests polymeric binders (4:47-55) in pellet form (4:57-62), and Polovina teaches a thermoplastic raw material in pellet form, therefore Medoff suggests the polymer feed material

which Polovina provides. Additionally, Polovina provides a known and conventional technique applicable to the Medoff process (known as providing a masterbatch) which would lead to the predictable result of supplying dry thermoplastic feed materials having the appropriate amount of additive already contained therein.

(b) Medoff suggests a raw material, such as nylon (4:52), having a mixing or extrusion temperature less than about 190 C (5:55-58). Valenti provides (page 394, left col., bottom) a nylon having a melt temperature of about 190 C by incorporating a metal salt additive. Valenti teaches that the melting temperature of pure nylon 6 is about 240 C, but by incorporating a small amount of LiCl, the melting point is depressed on the order of 50 C, leading to an expected melt temperature of on the order of 190 C. Thus, Medoff suggests the material and melt temperature range provided by Valenti. Additionally, Valenti provides a known technique available to the ordinary artisan working with nylon thermoplastics since 1973 which is applicable to the Medoff process which would lead to the predictable result of suppressing the melt temperature and extrusion at a lower temperature.

3. **As to Claims 2 and 4**, Medoff teaches kenaf (3:12, among others) and nylon (4:52). **As to Claims 5 and 6**, in the combination of Valenti using a metal halide (nylon + lithium chloride, 2:15-55) with the Medoff process, it is submitted that a reaction product with the melt is implicit in that the claimed ingredients are used at substantially the same temperatures. It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate this aspect of the invention into Medoff for the same reasons as set forth above. **As to Claim 7**, Medoff molds the material into shape (5:50-60). **As to Claim 9**, Medoff teaches fiberglass (5:12), and it is submitted that the glass fiber would be added during the mixing

process. Alternatively, rearrangement of the order of adding ingredients is generally considered to be prima facie obvious. One of ordinary skill would have found it obvious to add all reinforcing materials at the same time.

4. **As to Claim 10**, Medoff teaches a process for producing a temperature sensitive natural filler-reinforced thermoplastic polymer composition as an article which comprises:
(c) extruding a mixture of a temperature sensitive natural filler, consisting essentially of cut fibers selected from (3:10-47) plant leaves, stalks, seeds, and pellets (4:57-60) at a melting temperature less than 200 C (5:56-57) without degrading the natural filler (implicit in that the mixer and extruder temperature remains "less than about 190° C", 5:48-49 and 5:56-57).
(d) melt forming an article from the composition of step (c) (5:57-58)

Medoff is silent to the pre-blending, pre-drying, the metal particular metal salts and amount, melt temperature suppression, pelletizing, the method wherein the melt temperature is suppressed below 200 C by the metal salt, and the method wherein the extruding without the salt degrades the filler.

However, these aspects of the invention would have been prima facie obvious for the following reasons:

Polovina teaches a process for producing a filler reinforced thermoplastic composition comprising pre-drying a thermoplastic polymer to remove moisture (5:10-40) and extrusion forming the polymer and metal salts (4:43) through a die in a first extruder (5:60-61), wherein the additives are present in an amount of 1 to 10% (2:70), and subsequently pelletizing the strand to form pellets (5:60-61).

Valenti teaches a method wherein a mixture of a thermoplastic polymer and additive is provided wherein the melt temperature is suppressed below 200 C by a metal salt (page 394, left col., bottom) incorporated into a polymer material at about 1-10% by weight (page 394, left col., bottom). It is submitted that the claimed effect (drawn to what would occur without the metal salt) would be implicit when the salt and nylon of Valenti are used with the Medoff process.

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the methods of Polovina and Valenti into that of Medoff for the following reasons:

(a) Medoff suggests polymeric binders (4:47-55) in pellet form (4:57-62), and Polovina teaches a thermoplastic raw material in pellet form, therefore Medoff suggests the polymer feed material which Polovina provides. Additionally, Polovina provides a known and conventional technique applicable to the Medoff process (known as providing a masterbatch) which would lead to the predictable result of supplying dry thermoplastic feed materials having the appropriate amount of additive already contained therein.

(b) Medoff suggests a raw material, such as nylon (4:52), having a mixing or extrusion temperature less than about 190 C (5:55-58). Valenti provides (page 394, left col., bottom) a nylon having a melt temperature of about 190 C by incorporating a metal salt additive. Valenti teaches that the melting temperature of pure nylon 6 is about 240 C, but by incorporating a small amount of LiCl, the melting point is depressed on the order of 50 C, leading to an expected melt temperature of on the order of 190 C. Thus, Medoff suggests the material and melt temperature range provided by Valenti. Additionally, Valenti provides a known technique available to the ordinary artisan working with nylon thermoplastics since 1973 which is applicable to the Medoff

process which would lead to the predictable result of suppressing the melt temperature and extrusion at a lower temperature.

5. **As to Claim 11**, Medoff teaches kenaf (3:12, among others). **As to Claim 12**, Medoff teaches maleic anhydride modified polyethylenes (4:63-67), which the Examiner interprets to be a maleated compatibilizer. **As to Claims 13**, Medoff teaches at least nylon (4:52). **As to Claim 14**, in the combination of Valenti using a metal halide (nylon + lithium chloride, 2:15-55) with the Medoff process, it is submitted that a reaction product with the melt is implicit in that the claimed ingredients are used at substantially the same temperatures. It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate this aspect of the invention into Medoff for the same reasons as set forth above. **As to Claim 15**, Medoff molds the material into shape (5:50-60). **As to Claim 17**, Medoff teaches fiberglass (5:12), and it is submitted that the glass fiber would be added during the mixing process. Alternatively, rearrangement of the order of adding ingredients is generally considered to be prima facie obvious.

6. **As to Claim 18**, Medoff teaches a process for producing a temperature sensitive natural filler-reinforced thermoplastic polymer composition as an article which comprises:
(c) extruding a mixture of a temperature sensitive natural filler, consisting essentially of cut fibers selected from (3:10-47) plant leaves, stalks, seeds, and pellets (4:57-60) at a melting temperature less than 200 C (5:56-57) without degrading the natural filler (implicit in that the mixer and extruder temperature remains "less than about 190° C", 5:48-49 and 5:56-57).

Medoff is silent to the pre-blending, pre-drying, the metal particular metal salts and amount, melt temperature suppression, pelletizing and the method wherein without the metal salt the material would degrade the temperature sensitive filler.

However, these aspects of the invention would have been prima facie obvious for the following reasons:

Polovina teaches a process for producing a filler reinforced thermoplastic composition comprising pre-drying a thermoplastic polymer to remove moisture (5:10-40) and extrusion forming the polymer and metal salts (4:43) through a die in a first extruder (5:60-61), wherein the additives are present in an amount of 1 to 10% (2:70), and subsequently pelletizing the strand to form pellets (5:60-61).

Valenti teaches a method wherein a mixture of a thermoplastic polymer and additive is provided wherein the melt temperature is suppressed below 200 C by a metal salt (page 394, left col., bottom) incorporated into a polymer material at about 1-10% by weight (page 394, left col., bottom). It is submitted that the claimed effect (drawn to what would occur without the metal salt) would be implicit when the salt and nylon of Valenti are used with the Medoff process.

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the methods of Polovina and Valenti into that of Medoff for the following reasons:

(a) Medoff suggests polymeric binders (4:47-55) in pellet form (4:57-62), and Polovina teaches a thermoplastic raw material in pellet form, therefore Medoff suggests the polymer feed material which Polovina provides. Additionally, Polovina provides a known and conventional technique applicable to the Medoff process (known as providing a masterbatch) which would lead to the

predictable result of supplying dry thermoplastic feed materials having the appropriate amount of additive already contained therein.

(b) Medoff suggests a raw material, such as nylon (4:52), having a mixing or extrusion temperature less than about 190 C (5:55-58). Valenti provides (page 394, left col., bottom) a nylon having a melt temperature of about 190 C by incorporating a metal salt additive. Valenti teaches that the melting temperature of pure nylon 6 is about 240 C, but by incorporating a small amount of LiCl, the melting point is depressed on the order of 50 C, leading to an expected melt temperature of on the order of 190 C. Thus, Medoff suggests the material and melt temperature range provided by Valenti. Additionally, Valenti provides a known technique available to the ordinary artisan working with nylon thermoplastics since 1973 which is applicable to the Medoff process which would lead to the predictable result of suppressing the melt temperature and extrusion at a lower temperature.

7. **As to Claims 19 and 20**, Medoff teaches kenaf (3:12, among others) and nylon (4:52). **As to Claim 21**, Valenti uses lithium chloride (page 394, left column) as the preferred melt temperature suppressant. It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Medoff into that of Medoff for the same reasons as set forth above. **As to Claim 22**, Medoff teaches fiberglass (5:12).

Rejections over Valenti in view of Medoff and Polovina

8. **Claims 1, 2, 4-7, 9-15, 17-22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Valenti (Bulk Properties of Synthetic Polymer – Inorganic Salt Systems. Melting Behavior of Salted Poly(caproamide), The Journal of Physical Chemistry, Vol. 77, No. 3 (1973) pp. 389-

395) in view of Medoff (USPN 6207729) and Polovina (USPN 3637571). **As to Claims 1, 10, and 18**, Valenti teaches a method wherein a mixture of a thermoplastic polymer and additive is provided wherein the melt temperature is suppressed below 200 C by a metal salt (page 394, left col., bottom) incorporated into a polymer material at 4 wt.% (page 394, left col., bottom). It is submitted that the claimed effect (drawn to what would occur without the metal salt) would be implicit in the Valenti polymer.

Valenti is silent to extrusion forming this mixture into pellets, pre-drying, mixing with a natural temperature sensitive filler comprised of stalk or other fibers, and extruding the second mixture. However, these aspects of the invention would have been prima facie obvious for the following reasons:

Polovina teaches a process for producing a filler reinforced thermoplastic composition comprising pre-drying a thermoplastic polymer to remove moisture (5:10-40) and extrusion forming the polymer and metal salts (4:43) through a die in a first extruder (5:60-61), wherein the additives are present in an amount of 1 to 10% (2:70), and subsequently pelletizing the strand to form pellets (5:60-61). This technique is generally known as a masterbatch process.

Medoff further teaches or suggests a process for producing a temperature sensitive natural filler-reinforced thermoplastic polymer composition which comprises extruding a mixture of a temperature sensitive natural filler, consisting essentially of cut fibers selected from (3:10-47) plant leaves, stalks, seeds, and pellets (4:57-60) at a melting temperature less than 200 C (5:56-57) without degrading the natural filler (implicit in that the mixer and extruder temperature remains "less than about 190° C", 5:48-49 and 5:56-57). Medoff suggests the method for use with nylon (4:52).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the methods of Polovina and Medoff into that of Valenti for the following reasons:

(a) Valenti provides a nylon raw material having a suppressed melt temperature of about 190 C (page 394, left col.), and Medoff teaches processes and reinforcements which are suggested for use with nylon and an extrusion temperature of about 190 C. Thus, Medoff suggests the process for materials similar to those of Valenti. Alternatively, one would have been motivated to incorporate the reinforcement and the extrusion shaping technique of Medoff into the Valenti process as known and conventional techniques of reinforcing and shaping thermoplastic polymers.

(b) Valenti teaches a batch process for forming an amount of modified nylon by casting in a tube. The process of Polovina accomplishes substantially the same objective in a continuous process by mixing additives and pelletizing the mixture. It would have been obvious to substitute the continuous process of Polovina for the batch process of Valenti in order to increase the throughput and uniformity of the material. Alternatively, Polovina teaches a known technique known as masterbatching which would have obviously been applicable to the mixing of additives with a polymer disclosed by Valenti. As a conventional technique for mixing additives with a base material, one would have found it obvious to use the process with the materials of Valenti.

9. **As to Claims 2 and 4**, Medoff teaches kenaf (3:12, among others) and nylon (4:52). **As to Claims 5 and 6**, in the combination of Valenti using a metal halide (nylon + lithium chloride, 2:15-55) with the Medoff process, it is submitted that a reaction product with the melt is implicit in that the claimed ingredients are used at substantially the same temperatures. **As to Claim 7**,

Medoff molds the material into shape (5:50-60). **As to Claim 9**, Medoff teaches fiberglass (5:12), and it is submitted that the glass fiber would be added during the mixing process. Alternatively, rearrangement of the order of adding ingredients is generally considered to be prima facie obvious. One of ordinary skill would have found it obvious to add all reinforcing materials at the same time. **As to Claims 11 and 20,** Medoff teaches kenaf (3:12, among others) as suitable reinforcing material for thermoplastics, which would have been obvious for the same reasons set forth above. **As to Claim 12**, Medoff teaches maleic anhydride modified polyethylenes (4:63-67), which the Examiner interprets to be a maleated compatibilizer. It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate this aspect of Medoff into the process of Valenti in order to improve the bond between the matrix and the fiber materials. **As to Claims 13 and 19**, Valenti teaches nylon (page 389), but Medoff also teaches at least nylon (4:52). **As to Claim 14**, in the Valenti process, a metal halide (ithium chloride, 2:15-55) is used with nylon 6 in substantially the claimed manner. It is submitted that the same reaction would result. **As to Claim 15**, Medoff molds the material into shape (5:50-60). **As to Claims 17 and 22**, Medoff teaches fiberglass (5:12) as an additional reinforcement, and it is submitted that the glass fiber would be added during the mixing process. Alternatively, rearrangement of the order of adding ingredients is generally considered to be prima facie obvious. It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the glass fiber of Medoff into the Valenti process in order to further improve the strength of the material. **As to Claim 21**, Valenti uses lithium chloride (page 394, left column) as the preferred melt temperature suppressant.

Response to Arguments

10. Applicant's arguments filed 30 May 2008 have been fully considered but they are not persuasive or are moot in view of the new grounds of rejection set forth above. The arguments appear to be on the following grounds:

(a) While Sato discloses a metal halide (e.g., lithium chloride) which can influence the melting point of the polyamide, four components are required to achieve the balance of desirable mechanical and physical properties that make the resulting composition as a flexible hose material. 5/30/08 Remarks at 9-10.

(b) Sato and Medoff are not properly combinable because each reference relates to a composition whose mechanical properties are incompatible with the functional goals of the other reference. 5/30/08 Remarks at 11. Medoff provides strong, rigid materials for use as structural components. In contrast, Sato's polymer composition is flexible and elastic. It would have been inappropriate to substitute the resin material of Sato into that of Medoff.

(c) Neither the applied reference nor the knowledge of the ordinary artisan suggests the desirability of the beginning melt temperature above 200 C and the modified melting temperature below 200 C. 5/30/08 Remarks at 12. In particular, some common polyamides have melting temperatures below 200 C in their neat form. Each of Sato's examples uses nylon 11 which is consistent with nylon having a melt temperature of 200 C or below. Even if a different nylon had been selected, one still would not have been prompted to combine the elements of Sato and Medoff in the manner claimed. 5/30/08 Remarks at 14.

(d) The advisory action asserts that "about" 190 C includes some values above 190 C, but the advisory action does not provide any basis to interpret the disclosed value as anything other than 190 C.

(e) The heat stabilizer is irrelevant to the recited process since stabilizers are those that protect from prolonged thermal exposure. The disclosure of inorganic additives does not suggest metal halides.

(f) Objective evidence of non-obviousness is presented in the application specification. The composites have substantially improved mechanical properties because of their ability to reinforce a high-melting thermoplastic polymer without degrading the fiber. 5/30/08 Remarks at 15-16.

(g) The advisory action overgeneralizes the specific issue of unexpected results. The issue is not whether the recited temperature sensitive natural filler would have been expected to improve the strength of the recited high-melting temperature polymer. Rather, the issue is whether the skilled artisan would have expected that the temperature sensitive natural filler could have been used as a reinforcement in a matrix based on a thermoplastic polymer whose melting temperature is high enough to thermally degrade the natural filler. The skilled artisan would no have expected that a composite matrix of nylon-6 reinforced with a natural filler would have substantially improved mechanical properties because thermal degradation of the filler would have been expected. 5/30/08 Remarks at 17.

(h) The flexural strength and flexural modulus of some examples of Medoff which used HDPE were compared to nylon samples from the instant invention to demonstrate that the tensile strengths of compositions according to the claims are significantly higher.

11. These arguments are moot or not persuasive for the following reasons:

(a-c) Implicit in the reasoning of this argument is that one would recognize the melt temperature suppression of Sato as inseparable from the other teachings of the reference. While the Examiner respectfully disagrees, a new reference to Valenti has been located and relied upon above as a more focused and specific teaching of that which Sato has already disclosed - knowledge by those skilled in the art that salts such as LiCl have a melt temperature suppression effect on nylon.

Additional remarks with respect to the Sato reference are believed to be moot.

(d) Applicant's remarks appear to assert that the only reasonable interpretation of "about" 190 C is 190 C +/- 0 degrees. However, the word "about" would be meaningless in this view. The Examiner maintains the position and view that "about" suggests some values greater than 190 C.

(e) The heat stabilizer was cited merely as additional motivation, but is unnecessary and not cited in the rejections above. It is submitted that in view of the demonstrated knowledge in the 1973 Valenti article that the melt temperature of nylon 6 may be depressed from 240 C by 50 C to 190 C by the incorporation of small amounts of LiCl, that this is a conventional and well known concept in the art. It is submitted that this knowledge, combined with Medoff's suggestion to use nylon with a natural filler and to extrude the material at less than about 190 C would lead to the claimed invention. Recognition by Medoff of the effect of LiCl on the melt temperature of high melt temperature nylons is unnecessary. Medoff merely suggests nylon and a desired extrusion temperature, and Valenti provides a modified resin having the suggested characteristics.

(f,g,h) The comparison of two different resins has been considered, but is given little weight as evidence of non-obviousness. It is noted that there does not appear to be any comparative testing of Spec. 7, Spec. 8, Spec. 3, or Spec. 4 which omits the metal salt in order to establish the higher melt temperature required and the result of the degradation of the natural filler on the strength resulting from the higher temperature.

Applicants have argued that the issue is not simply whether the recited temperature-sensitive filler would have been expected to improve the strength of the recited high-melting temperature thermoplastic polymer. 5/30/08 Remarks at 16. As a rebuttal to this position, new grounds of rejection are also set forth above with Valenti as the base reference. Once it is known to provide the claimed polymer/salt composition, it is submitted that it would further have been obvious to pelletize the material (see Polovina), and to use the polymer in known processes such as Medoff which add reinforcement and mold in a conventional manner such as extrusion. In this view, the issue includes, at least in part, analysis of whether reinforcement would have been expected to improve the strength of the Valenti polymer.

The Kirk-Othmer reference cited at page 13 of the response does not appear to have been provided with the reply.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW J. DANIELS whose telephone number is (571)272-2450. The examiner can normally be reached on Monday - Friday, 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew J. Daniels/
Primary Examiner, Art Unit 1791
8/9/08